



Environmental Laboratory Advisory Committee (ELAC) Final Meeting Minutes: June 9, 2005

Editorial Note: Information communicated in these minutes is not to be used as official New Jersey Department of Environmental Protection policy or as an official Department notification. Contact NJDEP officials directly for official information regarding matters communicated in these minutes.

Administrative Business

Secretary Carol Conklin substituted as Chair in Harvey Klein's (GSL) absence and called the meeting to order at 9:37AM. A motion was made to accept the May meeting minutes. The minutes were approved.

Subcommittee Reports

Laboratory Certification Program: Rachel Werner (NJDEP-OQA) stated that some ACPL's are ready to be sent out. NELAC laboratories will not receive their ACPL's until after July 1, 2005.

PT program: Rachel Werner (NJDEP-OQA) stated that a letter informing laboratories to purchase their PT samples directly from approved vendors for the July DW study was sent out. The SHW study in October will be the first study under the new PT contract. A contract award letter has been sent to the vendors who bid on this contract.

Ms. Werner requested that laboratories that had received order forms from PT sample vendors displaying QC samples side by side with PT samples submit those forms to her so she could give them to the PT board. All NELAC laboratories are required to use the same QC samples with their PT testing as they do with routine samples.

NELAC / INELA Update: Dave Speis (Accutest) reported that the NELAC / INELA conference will be held in Raleigh, N.C on August 9th, 2005. Information can be found at www.inela.org.

Dave Speis stated that the 2003 NELAC standards allow NELAC laboratories to verify their MDLs at 1-4X concentration of the MDL instead of a mandatory yearly test. He stated that there was no corrective action listed in the standard if the MDL does not verify.

Carol Conklin (OCUA) asked Dave Speis to elaborate on a comment made at the last ELAC meeting that Inela is trying to be more friendly toward smaller laboratories. Mr. Speis replied that the EPA is trying to eliminate data integrity issues. An expert panel is considering a pathway that considers the impact of NELAC certification on smaller laboratories. Mr. Speis stated that New York State requires all of it's laboratories to hold NELAC certification.

NJQL's: The submission of a list of recommendations from the NJQL subcommittee concerning the NJQL database was discussed and voted upon by the committee members in attendance. Sharon Ercoliani (GSL) made a motion that the list be submitted to OQA and Vinny Mafinsky (JMEUC) seconded the motion. Dave Speis (Accutest) discussed the points

of the recommendations (see attachment) and Stu Nagourney (NJDEP-OQA) stated the department's response to each recommendation. There were no opposing votes to the motion to submit the list of recommendations to NJQL.

Bioassay: No report

Sludge (Biosolids): Anthony Pilawski (NJDEP) told the committee that the SQAR regulations were up for readoption. The tentative rule is finished and under legal review. There are no major changes. Dioxins, PCBs, and radionuclides will be in the parameter tables. TCDD has been removed. The scheduled publication date in the NJ Register is August 1, 2005. There is a 60 day comment period.

Mr. Pilawski stated there was statewide testing of biosolids for Dioxin and PCBs in August 2004. There should be a published study available by December 2005. There were some high PCB results which will be addressed on an individual basis, but there is currently no concern that the 300 ppt TEQ would need to be changed.

Vinny Mafinsky (JMEUC) asked if any required changes would wait to be adopted at permit renewal. Tony Pilawski responded that most changes would be implemented at permit renewal with the possible exception of radionuclide testing.

Communications and OQA Website: Rachel Werner (NJDEP-OQA) stated that the PT section of the OQA website has been updated with current PT testing information. There was no communications report.

Old Business

Bureau of Safe Drinking Water: Karen Fell (NJDEP-BSDW) reported that the Drinking Water Quality Institute should announce a MCL for perchlorate by the end of the July meeting. The MCL would probably be 5 ppb. Sharon Ercoliani (GSL) stated that it will cost labs \$100,000 to perform testing at a MDL below 1 ppb. It costs approximately \$50,000 to start testing at 5 ppb. Ms. Fell asked Sharon Ercoliani to email her any information she could present at the next testing subcommittee meeting. Ms. Fell informed the committee that the minutes for these meetings can be found at:

<http://www.state.nj.us/dep/watersupply/njdwqinstitute.htm>

Sharon Ercoliani (GSL) reported on problems with input of data for public water systems. Ms. Fell stated that the most common data input problems for non-community systems were an incorrect number of wells where the facility information was not correct. Ms. Fell stated that a letter to labs explaining SDWIS data entry may be needed.

PWTA: Karen Fell (NJDEP-BSDW) reported that Arsenic should not be tested by EPA method 200.7 for use in the PWTA program after January 23, 2006 when the NJ MCL for Arsenic will be 5 ppb.

Karen Fell reported that the PWTA data system sends out a well failure notice for total coliform presence. The notice has been changed to address the concerns of member

laboratories. The previous notice did not inform homeowners that the well should be retested if total coliform was positive but fecal coliform was negative.

The new notice will read: The presence of total coliform in the absence of fecal coliform suggests that the problem may not be of fecal origin, and may, for example, be a reflection of non-fecal coliform build up in the plumbing system instead of ground water. The NJDEP would recommend additional sampling or disinfection followed by sampling to help determine the extent of the problem.

Karen Fell reported that the PWTA Database should be online by January 2006.

Dave Speis (Accutest) reported that the wording in the 5th edition of the OQA / DW guidance document requires a sampling requirement for microbiology methods that lists a volume of 100 +/- 2 mls. He stated that the sampling accuracy requirement is too strict and should be addressed.

Site Remediation: Stu Nagurney (NJDEP-OQA) stated that there are three laboratories certified for the new TRIAD parameters and that more labs have applied. He also reported that site remediation samples whose recovery data for the hexavalent chromium methods is <75% will need to be tested utilizing EPA Method 6800. No labs are certified in New Jersey at this time for that method.

New Business

Dave Speis (Accutest) reported on a concern that laboratories are required to list unidentified MS compounds as synthetic organic contaminants under the Ground Water Quality standards. Karen Fell (NJDEP-BSDW) stated that the reason for this was that an interim generic number was required as there was no standard to determine if these compounds were carcinogens and whether this was a qualitative problem.

Sharon Ercoliani (GS Labs) made a motion to end the meeting and Mark Rahini (SBRSA) seconded the motion.

There were not any other new issues. The meeting adjourned at 10:59 A.M.

The next meeting is scheduled for 09:30 AM on July 14, 2005 – 4th Floor Conference Room.

Note: All visitors must show one form of identification with a photo, or two non-photo IDs, when signing in at a DEP building. This will be performed at all DEP main lobbies in the Trenton complex (401, 501, 440 and 428).

All visitors should be prepared to verify their identification.

Attachment:

ELAC NJQL Subcommittee MDL Data Import Recommendations

A subcommittee of the NJDEP-Environmental Laboratory Advisory Committee (ELAC) was established to monitor the NJDEP-Office of Quality Assurance initiative to develop a New Jersey Quantitation Limit (NJQL) and provide recommendations to the department on MDL data importing procedures and NJQL generation. The subcommittee is chaired by David Speis (Accutest) and includes Harvey Klein (Garden State Laboratories), Phil Worby (QC Laboratories), Tom Cady (Hampton-Clarke), Stan Gilewicz (Hampton-Clarke) and Melissa Motyl (ECM).

The Office of Quality Assurance (OQA) has begun to develop an electronic MDL data import tool that New Jersey accredited environmental laboratories can use to submit MDL data for use in the generation of NJQL values. A beta version of the tool was presented to a small stakeholder group in November 2004. Input was provided by the NJQL Subcommittee to the ELAC on the tool's attributes and shortcomings, which were used to develop additional recommendations for the Office of Quality Assurance regarding transmittal of method detection limit (MDL) from certified laboratories to the Department.

OQA has incorporated many of the ELAC October 2002 recommendations into the version of the data import tool that was demonstrated. These include using data import mechanisms that accommodate the capability of laboratory organizations of varying sizes and using a direct input electronic data deliverables (EDD) using an Excel type spreadsheet input that employs strict data field rules.

The additional subcommittee recommendations are presented herein:

1. Incorporating the rules for importing valid MDL data on the data input side should not be conducted as a condition of import. Data validity rules should be applied after data import and performed on a parameter specific basis that results in the exclusion of the MDL for the parameter that is unacceptable. The committee suggests that these rules be applied once the data is entered as a device to filter "non-qualifying" MDLs from the data set on a parameter by parameter basis.

Occasionally filtering criteria is not achieved and continuation of an iterative analysis process using different concentration spikes to generate an MDL does not resolve the issue. Using the 10X rule as an example, multiple spike concentrations may be required for each instrument/method/matrix combination to satisfy the 10X rule. If the 10X rule is not achieved using multiple spiking concentrations, an MDL that exceeds the 10X rule may be the only alternative. If data cannot be entered to the NJ system because of a filter that screens out the entire study on the input side, OQA will be deprived of data for the entire set. The committee interprets the objective of the data collection effort as getting MDL data into the NJDEP system.

This recommendation is consistent with the October 2002 ELAC recommendation that the Department develop computerized data processing rules for evaluating imported MDLs to filter and exclude non-qualifying MDL data from the data evaluation. Non-qualifying data could bias the database and have a detrimental effect on NJQL development

OQA Response: Only good data points will be accepted. The 10X rule would be evaluated after the input is accepted. A report will be sent to each lab denoting the success of data input. All the correct data will be accepted.

2. LCS recovery is not an element MDL determination as detailed by 40CFR Part 136 Appendix B. LCSs are not a required element of MDL studies and are not employed. The Subcommittee recommends that this data element be eliminated from the data input template.

This approach is consistent with the ELAC recommendations of October 2002 regarding collection of data for reasonable data fields only and having valid reasons for collecting specified data fields. They included excluding the replicate data for each MDL study and other data that is unrelated to MDLs, such as LCS recovery and LCS RSD

OQA Response: The department decided to collect the following information at the same time as MDL data and the data input is built into the database as a requirement. Data input required: The low and high standard of the curve, the spike value, the LCS and LCS % recovery.

3. The Subcommittee recommends that CAS numbers be employed for the NJDEP worksheet. These numbers are absent from the current version of the worksheet. This would be of great benefit in linking laboratory data to the DEP deliverable. Several stakeholders have offered to assist the NJDEP in assembling a translation list between the Department codes and CAS numbers.

OQA Response: The NJEMS database was a budgeted project. Any changes to the system would require more time and more money. He stated that there is a CAS# reference table and a parameter table. There is no reporting function in the database.

4. The Subcommittee recommends that electronic copies of the spreadsheet file in a format other than .PDF that contains laboratory specific certified parameter lists be distributed to laboratories as soon as it becomes available as well as the XML schema to enable accredited laboratories to start begin software development for generating the upload files for NJQLs.

OQA Response: Software information will be given to laboratories and labs will be able to upload, key stroke or cut and paste to input the data.

5. The Subcommittee recommends that OQA document the validation rules being employed during the data upload process for both software development and for administrative decisions and make them available to the environmental laboratory community.

OQA Response: All validation rules will be given to the laboratories.

6. The Subcommittee recommends that the data exclusion for situations where the MDL spike concentration exceeds the low calibration standard be discarded. Since MDL determination are performed using an iterative spiking process, there may be situations where the only viable way a qualifying MDL can be developed is through the use of an MDL spike concentration that exceeds the low calibration standard.

The Subcommittee is also concerned that MDL values developed using spike concentrations below the low calibration standard will be of undefined precision and accuracy. Typical environmental data

reporting practices require laboratories to qualify quantitative values of contaminants measured in environmental samples as “estimated” if their concentrations fall below the low calibration standard. To develop MDLs using what would be considered qualified quantitative values is inconsistent with existing data use practices.

OQA Response: The database will accept spike values at the low calibration standard or below. It will also currently accept spikes at twice the low calibration standard and that this point could be changed.

7. The Subcommittee recommends that OQA postpone further development of the NJQL until the USEPA has resolved the issues regarding MDL development. The Current 40 CFR Part 136 Appendix B MDL procedure has been found to be inadequate by the courts and the USEPA is under court order to develop an improved MDL procedure. A Federal advisory committee has been convened to provide procedural recommendations for a valid approach to determining MDLS and method limits. Resolution of this issue is essential to developing an NJQL with a valid foundation.

OQA Response: The new USEPA MDL procedure has taken a long time to develop and there is no belief that this issue will be resolved quickly.

8. The Subcommittee recommends that the Department develop and distribute clear requirements for conducting MDL studies that certified laboratories are required to follow that are consistent with the USEPA procedure once the MDL issues have been resolved. Following clear specifications promotes data comparability, minimizes interlaboratory variability and increase Departmental usability. The requirements should include the following elements at a minimum:
 - Require all studies to be performed following the specifications of Federal requirements.
 - Require study dates to be within the time frame specified by the Federal requirement or OQA rules.

OQA Response: There will be a step-by-step guide to the input of data.